

MODIS Land Cover Products: V004 Enhancements

Development Team:

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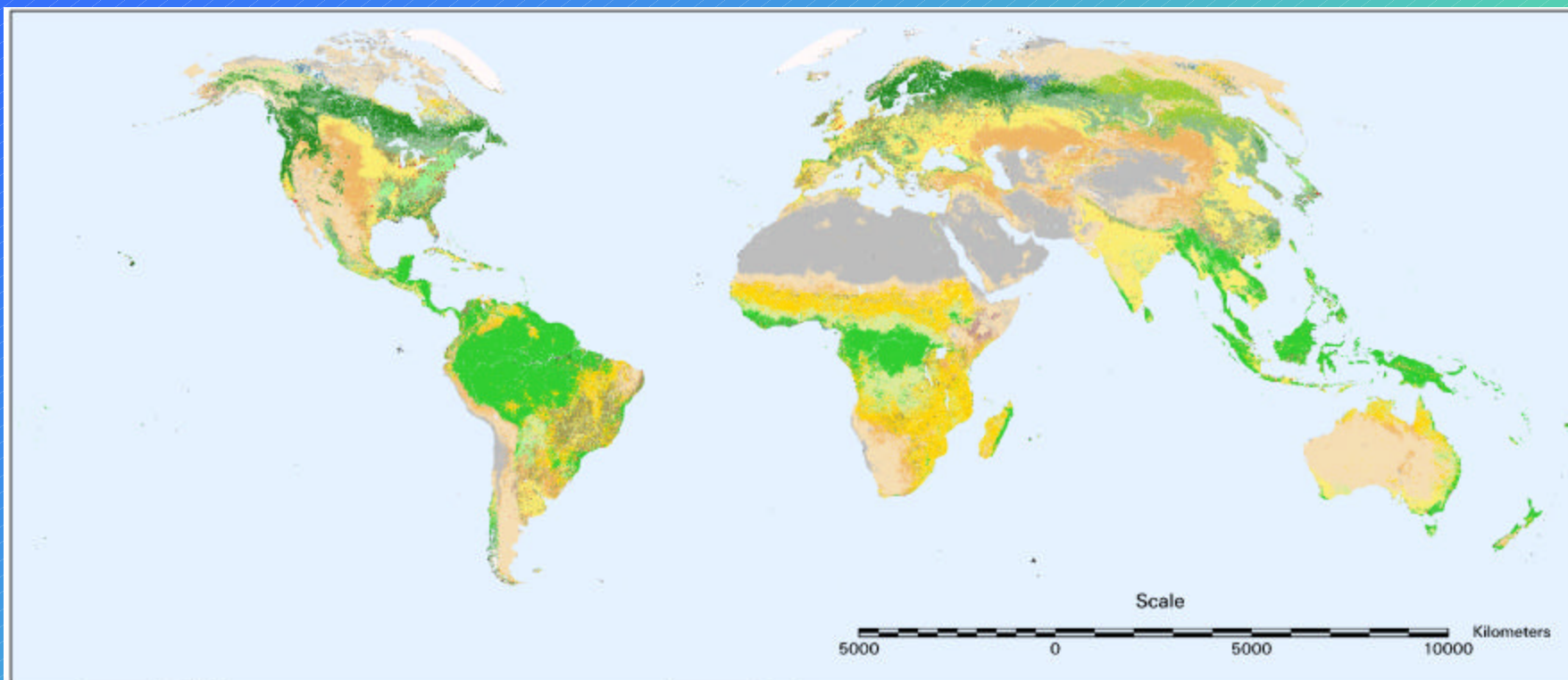
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V004 Enhancements

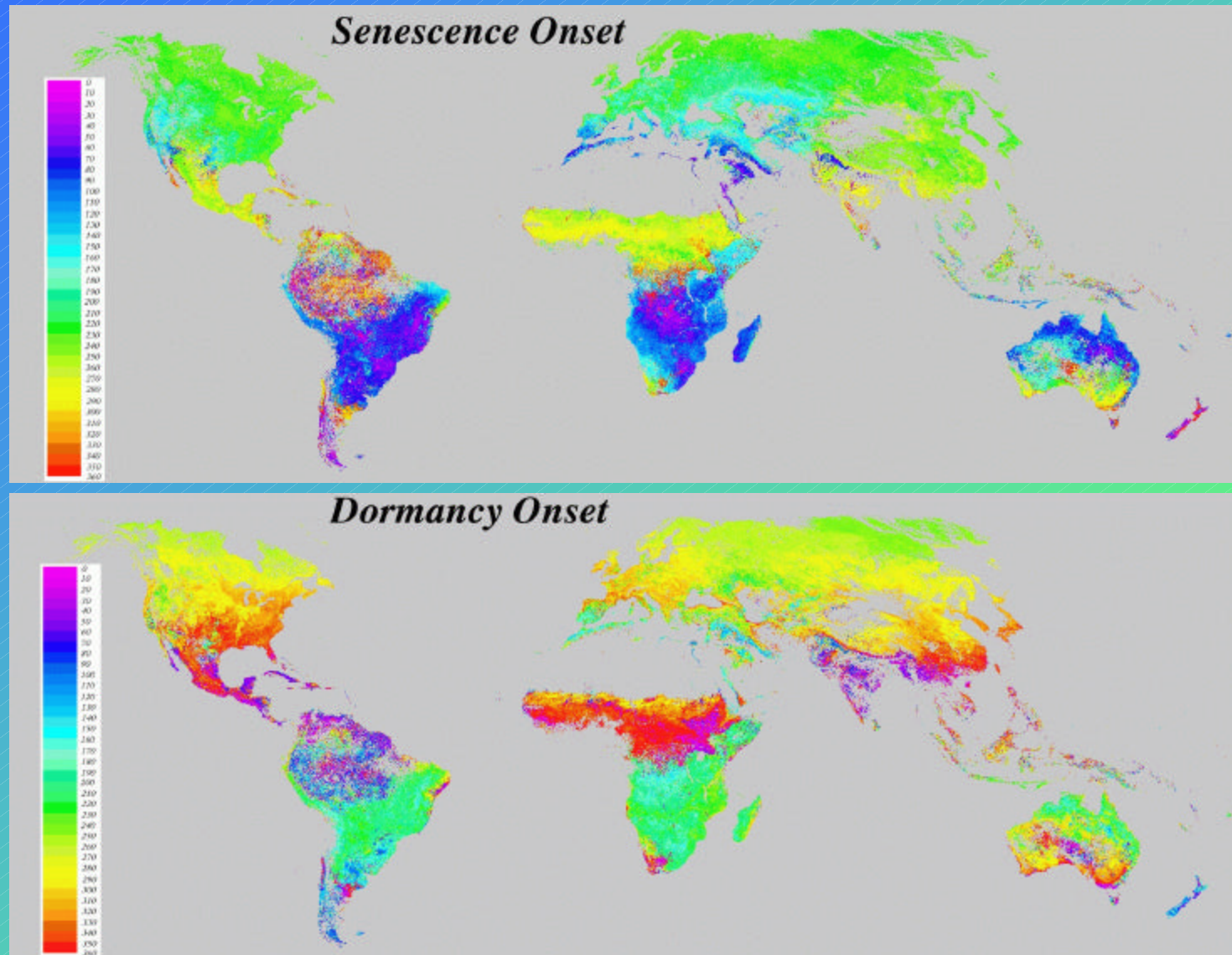
- Increased quality and reduced variance of the NBAR product
- Implemented the SIN projection and the 1/20th degree resolution CMG products.
- IGBP, UMd, LAI/FPAR, BGC will all be provided in the first V004 run (based on a years worth of V004 NBARs).
- PFT classification will soon be included as well.
- Land Cover Dynamics Product (formerly Land Cover Change) will be delivered during V004.
 - Annual phenology
 - Interannual change vectors

Land Cover Nov 2000 - Oct 2001



- | | |
|-------------------------------|---------------------------------------|
| 0 Water | 9 Savannas |
| 1 Evergreen Needleleaf Forest | 10 Grasslands |
| 2 Evergreen Broadleaf Forest | 11 Permanent Wetlands |
| 3 Deciduous Needleleaf Forest | 12 Croplands |
| 4 Deciduous Broadleaf Forest | 13 Urban and Built-Up |
| 5 Mixed Forests | 14 Cropland/Natural Vegetation Mosaic |
| 6 Closed Shrublands | 15 Snow and Ice |
| 7 Open Shrublands | 16 Barren or Sparsely Vegetated |
| 8 Woody Savannas | 254 Unclassified |

Phenology Metrics (2001)



Known Issues

- Continued improvements in the atmospheric correction algorithm (MOD09), cloud algorithm (MOD35), and the NBAR product (MOD43B4) will lead to further improvements in land cover product quality.
- Missing values in the NBAR product and the poor land/water mask lead to poorer quality results for some pixels
 - Quality composited 32 day inputs lead to improved results.
- We will continue our outreach to the Modeling Communities:
 - The Plant Functional Type (PFT) classification is in response to the NCAR-CCSM and LPJ communities.
- We wish to extend the L3 processing to include the Arctic and Antarctic (providing a few sunlit periods of NBAR each year).

V005 Enhancements Under Consideration

- Continual refinement and updating of the STEP land cover training sites database.
 - The addition of further under-represented classes
- An increase in the spatial resolution of products to 500m.
- Additional land cover classifications.
- Improvements to the new Land Cover Dynamics products.